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BRIEF REVIEW OF RESEARCH BEING CONDUCTED AT THE MILITARY
INSTITUTE OF HYGIENE AND EPIDEMIOLOGY IN WARSAW

by Sw.

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## FOREWORD

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BRIEF REVIEW OF RESEARCH BEING CONDUCTED AT THE MILITARY FINSTITUTE OF HYGIENE AND EPIDEMIOLOGY IN WARSAW

(Following is a translation of an article by Sw. in Zolnierz Wolnosci (Soldier of Freedom), Warsaw, May 24, 1960, p. 3)

There is no rumor of battle on this front. During the most embattled moments, the only noise to come out of this front is that of glass containers, electrical instruments or gas burners.

Fighting on this front has been going on for many decades and is always unyielding and energetic. It is permeated with a great feeling of humanitarism and is waged for the human health and life. It has its great heroes to whom Paul de Kruif had devoted his beautiful book: "Microbe Hunters". It also has many self-sacrificing fighters of everyday. One of the sectors of that front is the Military Institute of Hygiene and Epidemiology in Warsaw.

We have recently visited that Institute. It will soon celebrate the 15th anniversary of its existence, or rather the 15th anniversary of the existence of the Central Military Laboratory of Sanitary Hygiene, which became the scientific center of research. It is worthwhile to get acquainted with some aspects of its work.

The protection of the human organism against radiations has become very important during recent years. Many workers of the Institute are dealing in problems in that field. Thus Pharmacology Dr, S. Bitny-Szlachto, working in the Department of Toxicology, is studying preparations necessary for the protection of the human organism against radiations.

Among the preventive methods against sickness, and especially epidemics, an important function is that of the disinfection of closed and open spaces. Institute workers who are dealing with these problems are studying the possibilities, the ways and the means for the disinfection of air in hospitals and barracks.

Dozens of experiments are made on the virus responsible for a most general epidemic, i.e., common cold. The fact is that the fight against this microorganism and other similar ones is not at all easy. Their destruction demands many studies of air samples with bacteria, and the application of various chemical means and ultraviolet rays. As the result, a new and better way of disinfecting rooms is evolved.

This research is considerably aided by locally designed instruments, such as the aeroscope of Mgr. Eng. M. Diechtiar, or the "Pulsopyl". The other includes a miniature jet engine which permits a perfect spraying of disinfecting chemicals. It is interesting to note that such a "Pulsopyl" can perfectly protect against mosquitoes, the plague of many summer camps.

Interesting research is conducted by Dr. A. Kaminski, M.D. For instance, he has prepared a method for the detection of poison and the determination of its quantity in water, food and air. The same laboratory studies the power, the time of action of poison, and the rapidity with which it is absorbed from the milieu. The experimental equipment includes mosquitoes, insects and frogs. They also serve to study the action of remedies.

In another laboratory, Dr. W. Gall studies the virus which causes a form of brain inflammation. It has been learned that this virus uses mosquitoes as a means of transportation. The determination of the methods and means of action against mosquitoes helps thus to prevent the development of that serious sickness. Dr. W. Kwiek studies anti-bodies which cause resistance after anti-tetanus shots.

In many laboratories, some of them microbiological, military scientists are working on the modernization of microbiological studies, on the efficacity of protective vaccinations in the army, on the problem of an adequate choice of vaccines and their modernization. They also undertake long blood research on the universal blood doners who belong to the so-called group "O". Results which can be applied in modern medicine will be made available to the social health service.

Hygiene is part of the name of the Institute. What is the subject studied by workers in that field? We were told that it consists of the hygiene of water and food. This means that, for instance, the laboratory of food bacteriology, essential for the army, deals with problems of food preservation. This research is carried out with extremely accurate modern instruments which permit detection of traces of the studied substance in quantities smaller than a thousandth part of a miligram.

Another laboratory is one of the first in the country to deal with the determination of radioactive poisoning of water, food of vegetal nature, or even industrial products. This is essential for human health because the recently suspended atomic explosions resulted in radioactive fall—out. At the same time, industry increasingly uses radioactive isotopes which may escape from the factory outside in the form of sewage.

The hygiene specialists of the Institute are engaged in many other research. They study the influence of military service on the condition of the soldier's organism. Among this research, an important place is that of the study of the fatigue which noise creates in a soldier. This study is made by the means of an accurate chronore-flexograph designed at the Institute. It will render great services not only in the armored units of the army or air force, but also in transportation enterprises where it will permit determination of the degree of fatigue of the drivers. Many accidents will be thus avoided,

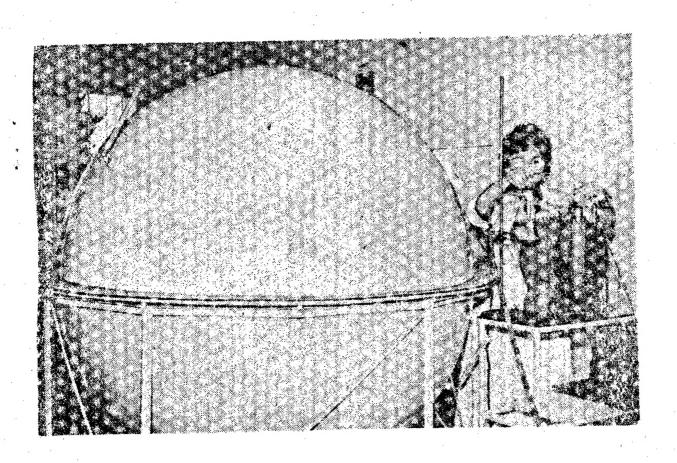
General Karol Kaczkowski, physician of the General Staff of the Polish Army in 1831, certainly never dreamed that buildings in which he had organized the first hospital for Polish soldiers laid down with cholera will house, one hundred and thirty years later, a military scientific center devoted to the fight against similar epidemics. Nor that here precisely military physicians of the Polish People's Army will continue the fight for the health of the Polish soldiers, that they will work for the protection of Polish citizens doing their military service on the health and physical abilities of these people.

But much of the Institute's research will be also widely applied in the civilian population and will help the social health service. Thus our national economy will profit from insecticides, new derating and disinfecting means developed in the Institute. Let us add that

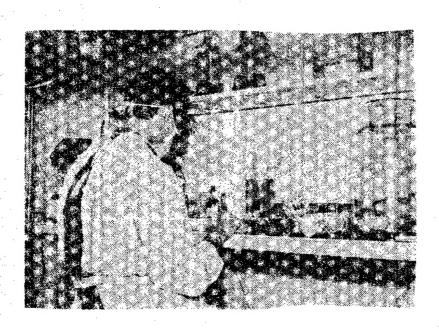
the personnel of the scientific center has authored 27 scientific publications, and that it cooperates closely with specialists of hygiene and epidemiology in other countries (on June 20, an international congress of specialists in that field will take place in Warsaw) and with many scientific institutions in the country. It is clear that the Military Institute of Hygiene and Epidemiology is indeed a most useful center.

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"This airtight chamber in the form of a sphere is used to study air from operation rooms or military barracks. It helps to develop new methods and means of disinfection in closed spaces."



"Inflarmation of the brain is a serious diamage. Dr. W. Gall studies the virus which causes this sinkness."